

Page 1 of 7

RECEIVEL

Page 1 of 7

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/489,850

DATE: 08/28/2001 TIME: 09:09:33

Input Set : N:\Crf3\RULE60\09489850.txt
Output Set: N:\CRF3\08282001\1489850.raw

```
SEQUENCE LISTING
      4 (1) GENERAL INFORMATION:
             (i) APPLICANT: VAN ALSTYNE, Diane
      7
                            SHARMA, Lawrence Rajendra
     9
            (ii) TITLE OF INVENTION: PEPTIDES REPRESENTING EPITOPIC SITES FOR
     10
                                      BACTERIAL AND VIRAL MENINGITIS CAUSING AGENTS AND THEIR
     11
                                      CNS CARRIER, ANTIBODIES THERETO, AND USES THEREOF
     13
           (iii) NUMBER OF SEQUENCES: 75
     15
            (iv) CORRESPONDENCE ADDRESS:
                  (A) ADDRESSEE: Foley & Lardner
     16
     17
                  (B) STREET: 3000 K Street, N.W., Suite 500
                  (C) CITY: Washington
     18
     19
                  (D) STATE: D.C.
     20
                  (E) COUNTRY: USA
                  (F) ZIP: 20007-5109
     21
             (V) COMPUTER READABLE FORM:
     23
     24
                  (A) MEDIUM TYPE: Floppy disk
                  (B) COMPUTER: IBM PC compatible
     25
     26
                  (C) OPERATING SYSTEM: PC-DOS/MS-DOS
     27
                  (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
     29
            (vi) CURRENT APPLICATION DATA:
C--> 30
                  (A) APPLICATION NUMBER: US/09/489,850
C--> 31
                  (B) FILING DATE: 24-Jan-2000
                                                                  ENTERED
     32
                  (C) CLASSIFICATION:
     34
           (vii) PRIOR APPLICATION DATA:
                  (A) APPLICATION NUMBER: 08/988,444
     35
                  (B) FILING DATE:
     36
     38
                  (A) APPLICATION NUMBER: US 08/127,499
     39
                  (B) FILING DATE: 28-SEP-1993
     41
          (viii) ATTORNEY/AGENT INFORMATION:
                  (A) NAME: BENT, Stephen A.
     42
                  (B) REGISTRATION NUMBER: 29,768
     43
     44
                  (C) REFERENCE/DOCKET NUMBER: 51916/103/INBI
     46
            (ix) TELECOMMUNICATION INFORMATION:
     47
                  (A) TELEPHONE: (202)672-5300
                  (B) TELEFAX: (202)672-5399
     48
                  (C) TELEX: 904136
     49
     52
        (2) INFORMATION FOR SEQ ID NO: 1:
     54
             (i) SEQUENCE CHARACTERISTICS:
     55
                  (A) LENGTH: 992 amino acids
```

Met Ala Ser Thr Thr Pro Ile Thr Met Glu Asp Leu Gln Lys Ala Leu

Glu Ala Gln Ser Arg Ala Leu Arg Ala Gly Leu Ala Ala Gly Ala Ser

10

(B) TYPE: amino acid

(D) TOPOLOGY: unknown

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

(C) STRANDEDNESS:

56

57

58

64 66

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69

## RAW SEQUENCE LISTING DATE: PATENT APPLICATION: US/09/489,850 TIME: 09

Input Set : N:\Crf3\RULE60\09489850.txt
Output Set: N:\CRF3\08282001\1489850.raw

70				20					25					30		1
72	Gln	Ser	Δτα		Pro	Δrσ	Pro	Pro		His	Ala	Δτα	T.eu		Hic	т
73	G111	001	35	mry	110	9	110	40	**** 9	******	niu	n- 9	45	0111	1113	-
75 75	Pro	Glu		Фhr	Pro	Δla	٧al		Pro	Glu	Gly	Pro		Pro	Pro	Δrσ
76	110	50					55			014	017	60	III u	110		*** 9
78	Пhr		λla	Ψrn	Gln	Δτα		Δsn	Trn	Ser	Arg		Pro	Pro	Pro	Pro
79	65	GLY	nια	111	0111	70	כעם	пор	111	501	75	ALU	110	110	110	80
81.		Gl 11	λra	Gln	Glu		λτα	Ser	Gln	Фhr	Pro	A 1 =	Dro	Tare	Dro	
82	GIU	GIU	nry	GIII	85	361	AIG	JCI	GLII	90	110	nia	110	цуз	95	361
84	λra	λla	Dro	Dro		Gln	Dro	Gln	Dro		Arg	Mot	Gln	ሞኮኮ		λrα
85	пта	лта	110	100	GIII	GIII	110	GIII	105	FIO	AT 9	Hec	GIII	110	GLY	nra
87	Glw	Gl v	Ser		Dro	λνα	Dro	Glu		Glv	Pro	Pro	Thr		Dro	Dhe
88	GLY	GLY	115	нта	110	AIG	FIO	120	пеа	GLY	FIO	110	125	ASII	FIO	rne
90	Cln	λla		Wa I	712	λra	C1 17		7 20	Dro	Pro	LOU		λan	Dro	A cn
	GIII		нта	vaı	нта	AIG	135	ьeu	AIG	PIO	PIO	140	nis	ASP	PIO	ASP
91	mb w	130	71-	Dwo	mb =	C1		C	37-1	mb ∞	C - ~		T 011	m~~	C 0 7	C1.,
93		GIU	Ald	PIO	THI		Ald	Cys	vai	THI	Ser	тър	Leu	тър	261	
94	145	c1	c1	31-	37- 1	150	M	3	37- 3	3	155	77.5 -	Dha	T1 -	3	160
96	GIĀ	GIU	GIĀ	Ala		Pne	TYL	Arg	vai	_	Leu	HIS	Pne	тте		ьeu
97	<b>~1</b>	m1	D	D	165	3	G1	3	<b>~1</b>	170	m	<b>3</b>	D	<b>31</b>	175	<b>W</b> -+
	GIY	Thr	Pro			Asp	GIU	Asp			Trp	Asp	PIO			Met
100	m		. D	180		- D		. D	18			. 37-3	*** 1	190		
102	туі	ASI		-	3 GTZ	Pro	) GI			O AL	a His	val			ATC	а ту
103		- 01	195					200	-		. m	<b>61</b> -	205		- 61.	
105	Asr			) Ala	a GTZ	ASE			a GT	y va.	r Trp			GT?	GIL	ı Arg
106	m1	210		<b>01</b> .			215	-			- 61-	220				
108		_	. ATS	GIU	ı Gir			e Arg	g va.	r GT			Arg	1 Tr	HIS	Arg
109	225					230					235		m).			240
111	ьег	і теп	ı Arg	у мет			Arg	1 GI	у те			ASP	Tni	Ala		Leu
112	D	n		. m\	245		. 3	. ~1.		250					255	
114	Pro	Pro	) Hls			GIU	Arg	1 116			r Arg	Sei	. AT	_		s Pro
115	П	. 3		260				. D	265		n Dha			270		
117	TIL	Arg	275		Phe	e GIŽ	Alc			1 Ale	a Pne	: Leu		_	/ те	ı Leu
118	T				31-		<b>~1.</b>	280			- 77-	<u></u>	285		. D	
120	Ter			ı val	LAIC	ı vaı	_	-	r Ale	A Ar	J Ale	_		GII	1 Pro	Arg
121 123	7 J -	290		. 21-	. 31-	. Dwa	295		- Dw	n D**		300		. 7 ~	- 71 <i>-</i>	a His
			Met	. Alc	i Alc			) Me	r PI	) P1(	315		PIC	ALG	ALC	
124	305			. m		310			~ 114	~ (2)			Dha			320
126	GT	, GII	ı nıs	3 T.A.1	_		s urs	S HIS	з пт			PIC	PHE	: пес	_	y His
127	<b>3</b> ~ ~				325		- mh-	. T	. 3	33					335	
129	ASI	, GIZ	HIS			( GT)	Tui	те с		_	r Grž	GI	I HTS		_	g Asn
130 132	31.			34(		. D		_ ***	34!				. 01.	350		
	Ala	a Sei			ь тег	ı Pro	O GIZ			о те	ı Gir	GIY			o GTZ	y Cys
133	m		355					360		- m1-		**- 1	365		- m1	
135	тул			ı sei	. ASE	LIL			n GI	y Th	r His		-	s Hls	s Thi	Lys
136		370				_	375		•	_		380		_		
138			Asp	Phe	e Tr	_		L GI	ı Hıs	s As	-		Pro	Pro	O AL	a Thr
139	385				. 621	390					395					400
141	Pro	o Thi	: Ser	Leu			Ala	a Ala	a Ası	_		e Ala	A La	a Ala		r Pro
142					405	)				41	υ				415	)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/489,850

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144 145	Ala	Thr	Ala	Pro 420	Pró	Pro	Cys	His	Ala 425	Gly	Leu	Asn	Asp		Cys	Gly
147	C1**	Dho	T 011		C1 **	Ctra	C111	Dro		7 ~~	T 011	Dwo	mh w	430	T	шь
148	GIY	FILE	Leu 435	261	GIY	Cys	GIĀ	440	Met	AIG	ьeu	PIO	445	Ala	Leu	THE
150	Pro	Clar	Ala	Val	Glv	A cn	Lau		λla	Wa 1	ui c	ui c		Dro	17 n 1	Dwo
151	PIO	450	ніа	val	GLY	АБР	455	AIG	нта	val	птв	460	AIG	Pro	val	PIO
153	71-		Pro	375.1	Cvrc	Ctro		Mot	7 ~~	Пхх	C1		Dma	Dwa	m	C1
154	465	тут	PIO	val	Cys	470	Ата	Met	AIG	пр	475	Leu	PIO	Pro	тгр	
156		V-1	Tlo	Tou	mb~		7 ~~	Dwo	C1.1	7 00		Шхх	ШЬъ	Crra	λ w.«	480
157	ьeu	Val	Ile	ьец	485	Ald	AIG	PIO	GIU	490	СТУ	ттр	Thr	Cys	_	GIĀ
159	17 n 1	Dro	- 1 ג	цiа	_	c1	mb~	7~~	Crra		C1	T 0	170 1	Com	495	Wat.
160	Val	PIO	Ala	500	PIO	GIY	THE	Arg	505	PIO	Glu	ьeu	Val	510	Pro	Mec
162	C1.	λ ~~~	Ala		Crra	C0.75	Dwo	<b>31</b> a		7 l a	T 0.11	Штт	T		mh	21-
163	GLY	Arg	515	1111	Cys	ser	PIO	520	ser	ALA	ьeu	тр		Ala	THE	Ala
165	7 cn	λl-		cor	T 011	7 02	Wie		Dho	71-	717	Dho	525	T 011	Ton	37-1
166	ASII	530	Leu	261	neu	АБР	535	нта	Pile	нта	нта	540	vai	ьeu	ьeu	Val
168	Pro		Val	Lau	T1 a	Dho		17 n 1	Cvc	7 ~~	λνα		Cvra	7 ~~	λ <b></b>	Dro
169	545	тър	Val	ьеu	116	550	Met	Val	Cys	AIG	555	нта	Cys	Ary	Arg	560
171		Dro	Dro	Dro	Dro		Dro	Cln	cor	Cor.		7 ~~	C1,,	Пhr	mhr	
172	Ala	PIO	Pro	PIU	565	261	PIO	GIII	ser	570	Cys	AIG	GIY	THI	575	PIO
174	Pro	λla	Tyr	C1 17	-	Clu	λla	Dha	Пhr		Tau	Cvc	Πh.~	71 -		C1.
175	FIO	міа	ıyı	580	Giu	GIU	ніа	rne	585	TYT	шец	Cys	1111	590	PIO	GIY
177	Cvc	λls	Thr		Thr	Dro	Wal	Dro		λκα	LOU	λla	C 1 17		C117	Dhe
178	Cys	АТА	595	GIII	TIIT	PIO	vai	600	vai	AIG	ьeu	ніа	605	val	GIY	rne
180	Glu	Sar	Lys	Tla	Va l	λen	Glw		Cvc	Dho	λla	Dro		7 cn	Lou	C1.1
181	GIU	610	цуз	110	Val	rob	615	Gry	Cys	rne	на	620	ттр	тэр	пец	Giu
183	λla		Gly	λla	Cvc	Tle	. — -	Glu	Tle	Pro	Thr		Wal	Ser	Cvc	Glu
184	625	1111	011	niu	Cys	630	CYS	OIU	110	110	635	кор	val		Cys	640
186		T.e.11	Gly	Δla	Фтъ		Pro	Пhт	Δla	Pro		Δla	Δτα	Tle	Ψтъ	
187	GLY	пси	Gry	лта	645	Val	110	1111	лта	650	Cys	Ala	лту	110	655	ASII
189	Glv	Thr	Gln	Δra		Cvs	Thr	Phe	Trn		Va 1	Δen	Δla	Тνг		Ser
190	011		·	660		0,10		10	665		,	110		670	001	501
192	Glv	Glv	Tyr		Gln	Leu	Ala	Ser		Phe	Asn	Pro	Glv		Ser	Τvr
193	0-1	011	675					680	-1-				685	0-1	001	-1-
195	Tvr	Lvs	Gln	TVr	His	Pro	Thr		Cvs	Glu	Val	Glu		Ala	Phe	Glv
196	-1-	690		-1-			695		-1-			700				2
198	His		Asp	Ala	Ala	Cvs		Glv	Phe	Pro	Thr		Thr	Va1	Met	Ser
199	705					710		1			715					720
201		Phe	Ala	Leu	Ala		Tvr	Va 1	Gln			His	Lvs	Thr	Val	
202					725		-1-			730			-1-		735	5
204	Val	Lvs	Phe	His		Glu	Thr	Ara	Thr		Trp	Gln	Leu	Ser		Ala
205		-1-		740				5	745			<b></b>	,	750		
207	Glv	Val	Ser		Asn	Val	Thr	Thr		His	Pro	Phe	Cvs		Thr	Pro
208	1		755	-10				760					765		<b></b>	
210	His	Glv	Gln	Leu	Glu	Val	Gln		Pro	Pro	Asp	Pro		Asp	Leu	Val
211		770					775					780	1	<b>-</b> F		
213	Glu		Ile	Met	Asn	Tyr		Glv	Asn	Gln	Gln		Ara	Trp	Gly	Leu
214	785	-				790	,	-4			795				- 4	800
216		Ser	Pro	Asn	Cys	His	Gly	Pro	Asp	Trp	Ala	Ser	Pro	Val	Cys	Gln
	_				-		_		_	_					-	

RAW SEQUENCE LISTING DATE: 08/28/2001 PATENT APPLICATION: US/09/489,850 TIME: 09:09:33

Input Set : N:\Crf3\RULE60\09489850.txt
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217						805					810					815	
219		Arg	His	Ser	Pro	Asp	Cys	Ser	Arg	Leu	Val	Gly	Ala	Thr	Pro	Glu	Arg
220		_			820				_	825		_			830		
222		Pro	Arg	Leu	Arg	Leu	Val	Asp	Ala	Asp	Asp	Pro	Leu	Leu	Arg	Thr	Ala
223				835					840					845			
225		Pro	Gly	Pro	Gly	Glu	Val	Trp	Val	Thr	Pro	Val	Ile	Gly	Ser	Gln	Ala
226			850					855					860				
228		Arg	Lys	Cys	Gly	Leu	His	Ile	Arg	Ala	Gly	Pro	Tyr	Gly	His	Ala	Thr
229		865					870					875					880
231		Val	Glu	Met	Pro		Trp	Ile	His	Ala		Thr	Thr	Ser	Asp		$\mathtt{Trp}$
232						885					890					895	
234		His	Pro	Pro		Pro	Leu	Gly	Leu		Phe	Lys	Thr	Val		Pro	Val
235					900		_	_		905					910		
237		Ala	Leu		Arg	Ala	Leu	Ala		Pro	Arg	Asn	Val	_	Val	Thr	Gly
238		_	_	915				_	920	_				925		_	
240		Cys	_	GIn	Cys	GLY	Thr		Ala	Leu	Val	GLu	_	Leu	Ala	Pro	Gly
241			930	_	_ ·	•	_	935		_			940		-1		_,
243			GLY	Asn	Cys	Hls		Thr	Val	Asn	GIY		Asp	val	GLY	Ala	Phe
244		945	<b>D</b>	<b>01</b>	T	D1	950	ml			<b>.</b>	955		m\	D	D	960
246		Pro	Pro	GIY	ьуѕ		Val	Thr	Ата	Ата		ьeu	ASN	THE	Pro		Pro
247		Ш	C1 n	37-1	C	965	C1	C1	c1	Com	970	<b>7 ~~</b>	٦ J ¬	C0.7	71-	975	иic
249 250		TAL	GIII	Val	980	Cys	Gly	GIY	GIU	985	ASP	AIG	Ald	ser	990	GIY	птъ
	(2)	INFO	. ש גאכ	ron i		2E0 3	רו או			903					990		
255	(2)					_	CERIS										
256		( - )															
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258						EDNES											
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265		(xi)	•	•					EO II	ON C	: 2:						
267												Pro	Pro	Arq	Met	Gln	Thr
268		1		-		5					10					15	
270		Gly	Arg	Gly	Gly	Ser											
271					20	•		•									
273	(2)	INFO	RMAT	ION I	OR S	SEQ :	D NO	<b>D:</b> 3	:								
275		(i)	SEQ	JENCI	E CH	ARAC	reri:	STIC	S:								
276			(A	) LEI	NGTH	: 7 a	amino	o ac	ids								
277			(B	TYI	PE: 8	amino	o aci	id									
278			(C	) STI	RANDI	EDNES	SS:										
279			-				ınkno										
285		(xi)							EQ II	ои с	: 3:			•			
287			Pro	Gln	Pro		Arg	Met									
288		1				5											
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292		(.i.)					reris							-			
293			•				amir		cids								
294			•	•			o ac	ıa									
295			•			EDNES											
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Input Set : N:\Crf3\RULE60\09489850.txt
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302
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
304
         Glu Arg Gln Glu Ser Arg Ser Gln Thr Pro Ala Pro Lys Pro Ser Arg
305
                                              10
307
         Ala Pro Pro Gln Gln
308
                     20
310 (2) INFORMATION FOR SEQ ID NO: 5:
312
         (i) SEQUENCE CHARACTERISTICS:
313
              (A) LENGTH: 7 amino acids
314
              (B) TYPE: amino acid
315
              (C) STRANDEDNESS:
316
              (D) TOPOLOGY: unknown
322
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
324
         Gln Thr Pro Ala Pro Lys Pro
325
         1
                          5
327 (2) INFORMATION FOR SEQ ID NO: 6:
         (i) SEQUENCE CHARACTERISTICS:
330
              (A) LENGTH: 21 amino acids
331
              (B) TYPE: amino acid
332
              (C) STRANDEDNESS:
333
              (D) TOPOLOGY: unknown
339
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
         Asp Met Ala Ala Pro Pro Met Pro Pro Gln Pro Pro Arg Ala His Gly
342
         1
344
         Gln His Tyr Gly His
345
                     20
347 (2) INFORMATION FOR SEQ ID NO: 7:
349
         (i) SEQUENCE CHARACTERISTICS:
350
              (A) LENGTH: 7 amino acids
351
              (B) TYPE: amino acid
352
              (C) STRANDEDNESS:
353
              (D) TOPOLOGY: unknown
359
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
361
         Pro Pro Gln Pro Pro Arg Ala
362
         1
364 (2) INFORMATION FOR SEQ ID NO: 8:
         (i) SEQUENCE CHARACTERISTICS:
367
              (A) LENGTH: 1063 amino acids
              (B) TYPE: amino acid
368
              (C) STRANDEDNESS:
369
370
              (D) TOPOLOGY: unknown
376
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
378
         Met Ala Ser Thr Thr Pro Ile Thr Met Glu Asp Leu Gln Lys Ala Leu
379
                                              10
381
         Glu Ala Gln Ser Arg Ala Leu Arg Ala Glu Leu Ala Ala Gly Ala Ser
382
                                          25
384
         Gln Ser Arg Arg Pro Arg Pro Pro Arg Gln Arg Asp Ser Ser Thr Ser
385
                                                           45
                                      40
387
         Gly Asp Asp Ser Gly Arg Asp Ser Gly Gly Pro Arg Arg Arg Gly
388
             50
                                  55
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/489,850

DATE: 08/28/2001 TIME: 09:09:34

Input Set : N:\Crf3\RULE60\09489850.txt
Output Set: N:\CRF3\08282001\1489850.raw

L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:1170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 L:1293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23

L:1296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23